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ABSTRACT

Evaluation in reading must be a continuous process. The assessment of readiness, progress, and mastery in the development of skills, concepts, and behaviors must be an ongoing process if the best decisions are to be made for each learner. The articles included in this yearbook offer a variety of assessment techniques, using both objective and subjective devices. Article titles and authors include: "Evaluation: Nine Easy Steps to Improving the Teaching of Reading" by Roger Farr; "The Classroom Teacher's Decision in the Use of Standardized Reading Achievement Tests" by Gabriel Della-Piana; "The Informal Reading Inventory" by Deon O. Stevens; "Informal Diagnostic Techniques" by Mabel S. Clayton; "Measuring the Unmeasurable" by Huberta V. Randolph; "Determining the Size Before Trying It on for Fit" by Morris L. Mower and Gail Johnson; "Evaluating Readiness for Reading" by Darlene Ball; "Instant Error Diagnosis and Prescription" by Ethna R. Reid; and "Keep It Simple!" by Maurine Jones. (TO)

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EVALUATION

IN

READING

Edited by Huberta V. Randolph

Utah Council of the International Reading Association

1972

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INTRODUCTION

Evaluation is an integral part of the educational structure. The assessment of outcomes is essential. It provides the necessary feedback for decision making both in curriculum planning and instruction. Evaluation is the responsibility of every educator, but it is primarily the responsibility of the teacher - the one who guides the learning.

The Yearbook, Evaluation in Reading, has been written for teachers and others who deal with children in the school setting. The articles not only provide techniques, but they also suggest ways of using results in decision making.

Evaluation in reading must be a continuous process. It is not a pre- and post testing program to be administered at the beginning and close of a school year. The assessment of readiness, progress, and mastery in the development of skills, concepts, and behaviors must be an on-going process if the best decisions are made for each learner.

There are many ways of determining readiness, growth, and mastery of skills, concepts, and behaviors in reading. The articles, while not all inclusive, offer a variety of techniques, using both objective and subjective devices. The best decisions cannot be made solely on observation and intuition. Neither can they be made using results from standardized tests. Data collected in various ways provide the most reliable feedback for decision making.

Special acknowledgment is made to the contributors who are responsible for this Yearbook. In addition to the persons responsible for the content, others assisted in its production. Louisa E. Avila, my secretary, did much of the follow-up work and typed the original copy. Alan D. Young, Specialist in Graphics Education in the Salt Lake City District, designed the cover and assisted in the preparation of the original copy. Deon Stevens, President of Utah Council of the International Reading Association, supervised the printing.

March, 1972

Huberta V. Randolph,
Editor

EVALUATION: NINE EASY STEPS TO IMPROVING THE TEACHING OF READING

Roger Farr
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Teaching children to read can be improved through the use of good evaluation practices. It is the purpose of this article to briefly describe those practices.

Similarities Between Evaluation and Instruction

The essentials of good teaching and good evaluation are quite similar. Good teaching demands clearly stated goals, and so does good evaluation. Good teaching is based on valid and reliable information about the learning environment and the characteristics of learners, and so is good evaluation. Good teaching happens when a teacher is alert to unexpected outcomes, and so does good evaluation. This list of similarities could be extended even further.

The main reason for these similarities is that evaluation and teaching are both related to decision making. The valuing process of evaluation usually results in some decision for action such as continuing a successful program for an additional year, expanding a program, or re-teaching a unit of material which students haven't learned. Because evaluation often results in a decision to take some action, evaluation has often been defined in its broadest sense as the process of providing information for making decisions. Teaching is also a process of continually making decisions. For example, a teacher decides to introduce certain instructional materials, to use selected teaching procedures, or to try to achieve specific objectives. It is the emphasis on decision making which is the essential similarity between teaching and evaluation.

The broad definition of evaluation being proposed here is that evaluation is a set of steps that will help teachers choose among instructional alternatives. Teachers are, of course, faced with a multitude of decisions in teaching reading. Examples of decisions include whether to assign particular reading materials to a particular child, which reading skills to teach to that child, how to organize for instruction, when to move a child to more advanced instruction, and so on. The list of decisions faced by a teacher is endless, and these decisions are made not just once but continuously.

For this reason if evaluation is to aid the teacher in making decisions, evaluation must be comprehensive and continuous.

Format for Planning Evaluation

Because of the similarity between good teaching and good evaluation, many of the processes of evaluation are not new to most teachers. However, the following description of evaluation practice should provide a framework for teachers to organize and make better use of present evaluation activities for improving instruction. To begin an effective classroom evaluation program it is necessary for a teacher to ask himself four questions. First, what decisions am I faced with in this instructional situation; secondly, what are the alternatives for each decision; third, what information do I need to choose between alternatives; and fourth, what procedures should I use to collect the information? For the typical situation in teaching reading the decisions could be categorized as those concerned with developing instructional objectives, the teaching method and materials to use, and, perhaps, the organizational pattern to use. Obviously this categorization of instructional decisions is arbitrary and many other patterns could be used. The first time systematic evaluation is put into effect, it would probably be advisable to develop a work sheet which follows th suggested framework. Such a work sheet is included below:

Format for Focusing Evaluation

	Decisions	Alternatives	Information Needed	How to Collect Information
Instructional Objectives				
Procedures				
Materials				
Organization				

Nine Steps to Implementing Classroom Evaluation

There are a number of approaches that could be taken to implement the evaluation design discussed above and evaluation will probably be most useful if each teacher would develop his own personalized approach. There are, however, a number of essential concerns that need to be dealt with regardless of the particular approach that is developed. These are labeled "the nine evaluation steps to improving the teaching of reading." They include the following:

1. You need to decide what you mean by reading.
2. Instructional goals based on your definition of reading must be developed.
3. You need to study the learning environment for each child.
4. Your instructional goals must be re-defined based on the study of each learning environment.
5. You need to list instructional decisions.
6. Alternatives must be listed and their feasibility considered.
7. Information needs for each decision must be stated.
8. Information collection strategies need to be selected, devised, and used.
9. Information must be used to make decisions, i.e. to implement an instructional program.

Each of these nine steps should be studied at length. For this paper it will only be possible to raise some of the more important considerations for each step.

Step 1. Defining Reading

Before anyone begins to teach systematically any set of behaviors to anyone elese, it is absolutely essential that the set of behaviors be defined. This holds true whether the behaviors being taught are called playing chess, swimming, criticizing literature or reading. There are times when a teacher does not define the reading behaviors he is teaching because he mechanically implements a specific set of instructional procedures outlined for use with a specific set of materials.

In these cases it is the author of the instructional materials who has defined reading and the author of the materials is, in fact, the teacher. The person presenting the materials (who is erroneously referred to as a teacher) is just that, a presenter of materials, and probably could be replaced by a programmed machine of some sort.

To be an effective teacher of reading, a teacher must view himself as a decision maker who who selects and chooses from a variety of educational structures in order to achieve a specific set of behaviors. It is defining these behaviors that is the vital first step.

Reading can be defined in a variety of ways. To validate that statement, one need only examine the vast number of operational definitions of reading exemplified by the many different instructional materials and different tests of reading. Reading is not a single, definite, agreed upon set of behaviors. The act of defining reading actually takes place everytime a teacher chooses to teach a particular skill of reading, everytime a particular set of instructional materials are selected to teach reading, and everytime a specific formal or informal test is administered. It is essential, however, to bring this defining act from an implicit to an explicit level so that it can become a recognized criterion for examining the validity of instructional decisions.

Defining reading can and should take place on three levels: theoretical, practical, and instructional. A teacher of reading will find that it will not be easy to develop these three parts of the definition, but it is this base on which the evaluation process is built. Before considering these three parts of the definition it should be made quite clear that the first essential of good definition is that the definition must be constantly re-examined and revised. The process of defining reading should become a lifetime task for teachers of reading.

The first level of the definition, the theoretical, sets the stage for the next two levels. It is at this level where one must consider whether reading is a cognitive and/or affective process; whether it is related to other language behaviors, and what its unique features are.

The second level, the practical, is where one must consider the actual instances and situations in any individual's life and decide whether these are instances of reading. Is skimming a grocery list reading? Is reacting to facial expressions? Finding a telephone number in a directory? Telling someone about a book? From this practical level of definition, the teacher will be able to develop broad goals that he will try to achieve with his students.

The third level, the instructional, is the level at which one considers the specific skills that comprise the general behavior he has called reading, the optimal sequence for teaching those skills, and in general determines what must be taught in order for the general goals (or the practical definitional level) to be reached.

Each of the three levels must be compatible if any level is to be useful to the teacher. Without this first step, the defining of reading, there is little reason to try to implement any of the steps which follow.

Step 2. Developing Instructional Goals

Obviously the second and third levels of the defining step leads directly to the development of instructional goals. The instructional goals should state the behaviors to be exhibited by learners. However, it is not essential and certainly not practical to attempt also to state criterion levels or conditions for each instructional goal. These two factors may possibly be determined at the time specific instruction is being planned, but they are not helpful or needed at this stage.

The instructional goals should:

1. be congruent with the stated definition of reading.
2. specify learner behaviors.

Step 3. Studying the Learning Environment

The preceding two steps are not dependent on a particular teaching/learning situation. They are cognitive tasks that require continued study by the teacher, and they apply to any instructional setting. The teaching of reading cannot stop until everyone has thoroughly studied the reading process.

Each teacher must face the task of simultaneously engaging in the continuous study of the reading process while actually teaching children to read.

The first step in bringing a definition of reading and general reading goals into utilization is a study of the learning environment. This study should include searching for answers to the following questions:

1. What are the language backgrounds of the students?
2. What are the experiential backgrounds of the students?
3. What is the community's view toward education?
4. What are the age levels and past learning experiences of the children?
5. What is expected and required of children in reading by teachers?

Even tentative answers to these questions will provide a useful guide to Step Four: Redefining Instructional Goals.

Step 4: Redefining Instructional Goals

The information gathered in step three can be used to revise and refine instructional goals for a specific set of learners. For example, a general instructional goal might be stated as "Children will exhibit interest in reading by choosing and reading books." What kinds of books they will be interested in will certainly depend on their age levels, their experiential backgrounds, and other factors. If the community has never been a book oriented community, but rather views schools as institutions to teach vocational skills, then the goal might be revised to include trade journals.

The purpose of this redefinition stage is to bring broad instructional goals into sharper focus and to make sure they are realistic for a given situation.

Step 5. Listing Instructional Decisions

Once the instructional goals for a particular learning situation have been stated, the teacher needs to plan the program to reach the goals. This planning takes place continuously with instruction. The framework for this planning is based on instructional decisions. Decisions are generally concerned

with reading levels and skills, instructional materials and methods, and organization.

The teacher wants to know what reading skills to teach to a particular child? What instructional approach to use? What materials to use? The list of instructional decisions is as extensive as the instruction itself.

Step 6. Decision Alternatives

If a decision is valid, it must include more than one alternative. For example, if a teacher must use one particular reading book for all students, then it is obvious that there is no need to list choice of reading level of materials as a decision. However, it is this study of the feasibility of alternatives which often results in the increased interest in alternatives to present practices.

Perhaps, the most important point to remember in regard to decisions and alternatives is that almost all instructional decisions are tentative and they must be continuously reconsidered.

Step 7. Information Needs

Once the feasibility of alternatives has been established, the next step is to consider the information that is needed to choose a particular alternative. The information needs are, of course, primarily determined by a particular decision. However, the teacher's definition of reading will also be an important factor in determining information needs. For example, a decision may involve the assignment of a particular reading level to a child. The information needs to make this decision would be how well the child reads the materials of varying instructional reading levels. But the question that still needs to be answered in this example is still based on the already stated definition of reading. Should the child read the materials orally or silently, should oral reading errors be corrected, should comprehension questions be asked and, if so, what kinds? Answers to these questions depend on how the teacher defines reading.

Step 8. Collection of Information

The next step is to consider the procedures for collecting the needed information. The key determiners in selecting information collection procedures are the decisions to be made.

The usual practice in collecting information is to administer some standardized reading test. While standardized reading tests may provide needed information for making some decisions, it is obvious that they do not provide information for many daily instructional decisions that the teacher has to make. Teachers should begin to develop and collect a wide variety of information collection procedures that can be used when needed. These could include checklists, observation forms, short criterion referenced tests, and so on.

A discussion of the validity and reliability of these procedures would involve more discussion than is possible in this paper. However, two points can be made. First, the validity of an information collection procedure is dependent on the match between the teacher's definition of reading and the information collection procedure. Secondly, the more often information regarding particular behaviors is collected the more reliable will be the decision about those behaviors.

It is quite possible that this eighth step, the development, selection, and use of information collection procedures is the step which causes the greatest difficulty in the approach being described here. Teachers need to have more experience and practice in the art and science of efficiently collecting information which is both valid and reliable to help them make instructional decisions.

Step 9. Implementation of Decisions

The last step in the nine step process described here is the implementation of a decision. This step involves revising materials and teaching strategies, and considering information needs to determine the effectiveness of the newly implemented strategies. It is this consideration of how to determine if the new strategies are successful that will result in the recycling of this process from step four back again to step nine.

Summary

It is essential that the teacher and those who support classroom activities recognize the importance and opportunities of the major sequences of decisions within the broad program. It is

equally important that they are able to operationalize each portion of the sequence. This aspect involves clear statements of objectives; delineation of instructional procedures and alternatives, being careful to make clear the relationship of procedures to objectives; and the statement of criteria for recognizing that the objective has either been met or to determine what else is necessary to secure its attainment.

What has been described here may be called "merely good teaching," and, in fact, this model does place the teacher in a role as planner who makes rational decisions regarding an educational environment which is likely to provide an optimal learning situation. Evaluation in the classroom necessitates much preplanning and critical thinking. Teachers may plead that this time should be spent in activities other than evaluation. Evaluation, however, can be a vital guide for planning instruction; as a monitoring system to determine the nature of assistance for teachers as well as students; and as a system for insuring student success. Viewed in this manner the only concern should be that it would be wasteful of the time and energy of both teacher and children not to begin systematic evaluation.

Many attempts to implement evaluation procedures at the classroom or program level have met with only limited success. Sometimes the teacher is unable or unwilling to state objectives in relation to the complexities of the total program. In addition, if the teacher competencies described above have not been part of an effective pre- or in-service program, teachers will be required to "shop" for appropriate training programs, school districts, or materials to assist in developing their competencies.

It is also possible that other concepts such as traditional testing or grading practices are incompatible with evaluation. In this case the instructional staff should examine contradictory policies and begin to set priorities.

THE CLASSROOM TEACHER'S DECISIONS IN THE USE OF STANDARDIZED READING ACHIEVEMENT TESTS

Gabriel Della-Piana
University of Utah

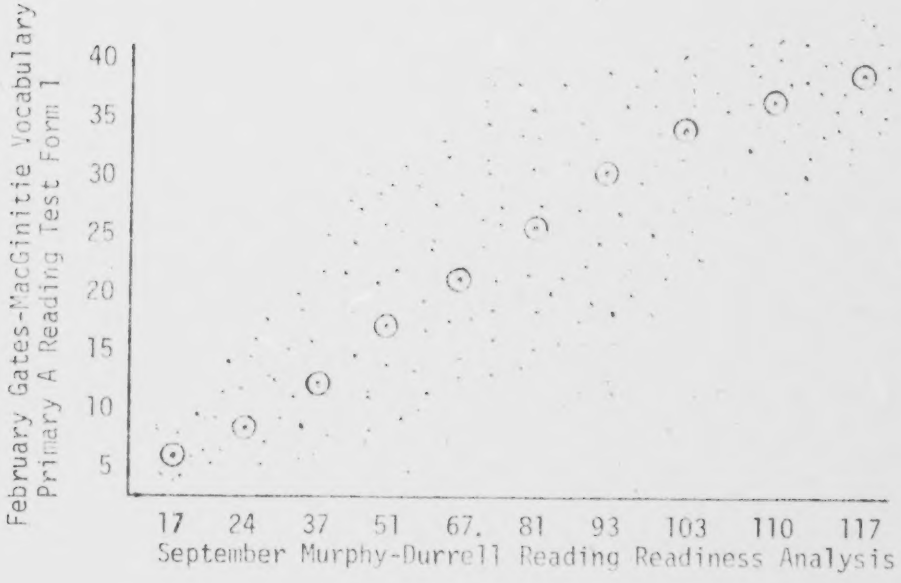
Standardized reading tests are administered in most schools. There are a number of ways in which they may be used by the teacher in the planning of an instructional program. These ways are briefly discussed and illustrated here under two major categories, Predictive Uses (including comparisons with norm groups, prediction within a program, differential prediction between programs and Individual Diagnosis (including interpretation of profiles of an individual student, item performa of students, and relationship between standardized test performance and informal reading inventory performance).

Predictive Uses

A major use of standardized reading tests is for prediction of the potential performance level of a student and assessment of program's effectiveness. Questions to be asked in these uses of standardized tests by the classroom teacher are:

1. Comparison with norms. How do your students compare with students of similar age and ability in communities similar to the one they are in? Often comparisons are made with "national" norms. This is not an adequate comparison for a school-community program with unusual advantages or disadvantages for children. How confident may one be in interpreting any scores on the test based on the accuracy with which instructions were followed in administering the test and scoring it? Often, tests are administered and scored in ways that deviate from the standardized instructions. In such cases the norms are useless although the individual test item responses may still be helpful if the administration and scoring procedures are known.

2. Prediction within a program. The use of a scattergram will help you to visualize how effectively a particular test predicts achievement in your program. Data from a hypothetical study is presented to illustrate the procedure.



From such a scattergram you can determine the best fit line (the means of each column represented by ⊙ by inspection or by use of a regression equation. You can then find the critical score on the aptitude test that predicts the need for remediation. For example, if a child is below the mean score for his aptitude level on achievement in February, you can pick him up for diagnosis and remediation. (Thus, a child with Murphy-Durrell of 17 is predicted to have a February vocabulary of 6. If he is lower, look at him.) Also, if a vocabulary score below 20 in February is considered too poor for your group, then as early as September you know that anyone with a Murphy-Durrell below 67 should be given special attention.

The same kind of scattergram can be made with any number of tests as predictors (e.g. auditory discrimination, word recognition, comprehension, blending) and any number of other tests as achievement measures to be predicted (e.g., oral and silent word recognition, vocabulary, comprehension and rate of reading).

3. Differential prediction between programs. Suppose you have two different programs for teaching initial reading: Treatment A, a phonics treatment (Fry's material) and Treatment B, a look-say treatment (Scott-Foresman). Do children with certain aptitudes do better under one treatment than another? Consider the ITPA auditory-vocal sequential test ("Listen-Say 6-8-9"). Results comparing performance on this aptitude test with reading achievement under the two treatments looked like the representation in Fig. 1.0 in one study. The lines shown are regression functions (i.e., the regression lines representing the best fit for predicting a person's score on one test from his score on another). What the results show is that below a certain level of

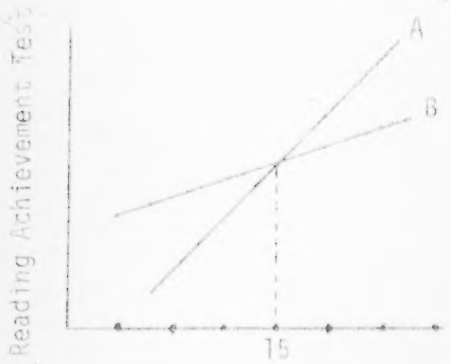


Fig. 1.0
Auditory-Vocal Sequential Test

sequencing ability (15 on the ITPA auditory-vocal sequential test) a child could be placed on a whole word method (B) to maximize his chances of success. Above a score of 15 a child could be placed in a linguistic phonics method to maximize his chances of success. This kind of analysis can be done for a small group of classes or even for a teacher's own class over a period of years if two methods are used on randomly assigned subgroups of her class.

On the other hand if one program yields consistently better results than another, then there is no use in giving an aptitude measure since all children should be assigned to the best treatment. That situation is depicted by Fig. 2.0 below. It is clear that no matter what the level of

That situation is depicted by Fig. 2.0 below. It is clear that no matter what the level of

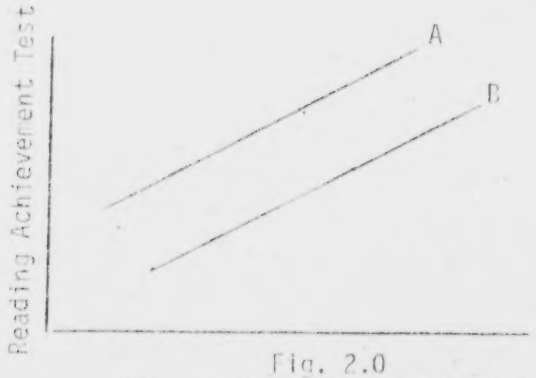


Fig. 2.0
Auditory-Vocal Sequential Test

aptitude of a child, method A yields better results than method B. Studies yielding data such as in Fig. 1.0 and Fig. 2.0 are increasingly needed locally and nationally.

For Individual Diagnosis

1. Which scores in a profile for a student are reliably different? Is a student really better in one skill than another? Each test score should be considered as a band not a point. The band is ± one standard error of the student's score. Thus, if Jim's t-score is 50 on vocabulary and 44 on comprehension, is he really better in vocabulary than comprehension? If the standard error of both tests is "3", Jim's score band on vocabulary is 47 to 53 and on comprehension is 41 to 47. Since the bands overlap, we should not put much confidence in hypothesizing about why he was higher in vocabulary than comprehension, nor in devising more special programs for one than the other. If the bands did not overlap, it would be worth paying special attention to the lower score.

2. On which kinds of test items did the class and individual students perform poorly?

Suppose a computer printout of the tests for your class was as follows:

Test Behavior	Test Items	Students Missing Each Item
Identifying the meaning of prefixes in words (prefixes: un, re, in, in, pre).	3	Bill, Rob, Jim Alice
	16	Bill
	19	Bill
	25	Bill
Interpret figurative language such as metaphor, simile, and	5	Bill, Rob, Jim, Alice, John, Peter
	12	Bill, Rob, Jim, Alice, John, Peter
	17	Bill, Rob
	23	Bill, Rob
Syllabication: dividing words into syllables such as to-ma-to, stu-dent, re-turn, say-ing, ei-ther, a-cross, de-scribe, rid-dle, ea-ger.	7	Bill
	15	Bill
	27	Bill, Rob
	30	Bill
	33	Bill

Obviously this kind of summary is helpful to you in deciding what individual students to check out for further diagnosis and individualized work on specific skills and what skills seem to be a problem for a larger group, and therefore, perhaps, a weakness in the total curriculum in reading

3. What functional reading level does a specific standardized test score represent?

If you gave an informal reading inventory to each child based on basal readers, you might identify the basal reader level at which a child reads independently (99% or better word calling in context, 90% or better comprehension and 90% or better in pronouncing words in isolation) and with instructional help (95 to 98% in word pronouncing in context, 51 to 89% comprehension and 50 to 89% pronouncing words in isolation). Then you can plot standardized achievement test

performance against IRI (Informal Reading Inventory) performance and come up with information like the following:

NUMBER OF STUDENTS WITH SPECIFIED LEVELS OF
STANDARDIZED TEST AND IRI TEST PERFORMANCE

N = 120 Fourth Grade Students

Fourth Grade Basal Reader IRI Performance Levels	Standardized Reading Test Performance Total Score							
	40-49	50-59	60-69	70-79	80-89	90-99	100-109	100+
Independent	0	0	1	10	20	80	110	119
Instructional	0	1	1	20	30	30	5	0
Frustrational	120	119	118	90	70	10	5	1

This kind of information will allow you to say that students scoring 100 or better on the standardized reading test (which may incidentally represent a grade equivalent of 5.8) can be considered independent readers in the fourth grade basal reader.

THE INFORMAL READING INVENTORY

Deon O. Stevens
University of Utah

The informal reading inventory (IRI) is a device designed to (1) uncover some of the major basic factors of a student's functional reading behavior, and (2) identify the student's independent, instructional, and frustrational reading levels. The inventory is administered during a structured reading situation in which the student reads selections of different reading difficulty both orally and silently. During the reading, the teacher records pronunciation errors and comprehension errors. The teacher's notes are then compared with a set of criteria to identify the student's reading levels.

The Independent Reading Level

The independent reading level is that level where the reader experiences no difficulty; that level at which a person has sufficient control of vocabulary, word attack skills, language structure, and comprehension to allow reading without assistance. The novel which you, as an adult pick up and breeze through, is written on an independent reading level for you.

Although there is not complete agreement among authorities as to criterion specifics for each reading level, I feel that the following percentages are appropriate. For reading behavior to be judged at the independent level, the reader must:

1. Pronounce accurately 98-100% of the words (excluding proper nouns if mispronounced).
2. Answer correctly at least 90% of the comprehension questions.

Instructional Reading Level

The instructional level is that reading level at which all instruction should be initiated. Materials at this level are not so difficult as to frustrate efforts to learn, nor so easy as to fail to challenge the intellect.

For reading behavior to be determined at the instructional level, the reader must:

1. Pronounce accurately 94-97% of the words.
2. Answer correctly 75-90% of the comprehension questions.

Frustrational Reading Level

Often, the frustrational level is the level at which far too many students are expected to work. This level of difficulty is reached when the student is unable to overcome obstacles in reading and shows definite symptoms of blockage. The language structure may be too difficult for the student to handle. Concepts may be presented too rapidly and without appropriate clarification. This is especially characteristic of expository writing more so than of narrative writing.

If required to read materials at this level of difficulty, the student will probably:

1. Pronounce accurately less than 90% of the words.
2. Answer correctly 50% or less of the comprehension questions.
3. Exhibit certain types of errors, such as:
    a. word-by-word reading,
    b. frequent word and/or phrase repetitions, additions, substitutions, or ommissions,
    c. incorrect interpretation of punctuation,
    d. making errors on known words, and
    e. inability to anticipate meaning, to utilize context clues.

Compiling an IRI

One of the advantages of the IRI is that it is relatively inexpensive. The materials for the inventory are usually readily available. One disadvantage is that the IRI requires some time in putting it together.

To begin, the teacher should secure graded reading selections representative of levels lower than the level being taught. Other levels may be added to the inventory at the teacher's convenience. (See Figure 1)

FIGURE I

READING LEVELS

GRADE LEVEL CURRENTLY TEACHING

	1	2	3	4	5	6	7	8	9	10
2	X	•								
3	X	X	•							
4	X	X	X	•						
5	•	X	X	X	•					
6	•	•	X	X	X	•				
7			•	X	X	X	•			
8				•	X	X	X	•		
9					•	X	X	X	•	
10						•	X	X	X	•
11							•	X	X	X
12								•	X	X

X Suggested Reading Levels to be included in initial IRI according to current grade being taught.

• Suggested Reading Levels to be added to IRI at later time.

For example, the sixth grade teacher will secure selections representing third, fourth, and fifth grade reading levels. Selections on first, second, and sixth grade are also appropriate, and the teacher would do well to add them to the others.

Because the inventory is used to assess reading performance, the selections must not be familiar to the students. Preferably, the selections should be approximately one hundred words in length, they should be appealing, and they should be of such nature that ten questions dealing with both factual and inferential questions can be raised from the content. The copy on which the teacher records the student's performance should be a double-spaced facimile of the student's copy.

Toads

You will probably be surprised to know that toads make interesting pets. These harmless little creatures do not bring us bad luck as some people think. The toad is really one of our best friends and not an enemy at all.

Toads are nice people, harmless, good-natured and friendly. They come to our gardens and doorsteps because they can find food there. In return for a safe hinding place under the doorstep or a bush, one toad will eat thousands of harmful insects, worms and slugs during the summer.

Toads do not cause warts. The little lumps on a toad's skin are tiny glands.

Comprehension Questions

1. Why do some people think toads bring bad luck? (stories handed down cause superstition -- or any appropriate answer) _____
2. Are toads harmful? (no) _____
3. Is a toad our enemy? (he isn't) _____
4. Why do they come to our gardens? (food) _____
5. What do they do for us? (eat thousands of insects, worms, slugs) _____

_____

6. Where do they like to hide? (under doorstep or bush) _____
7. Why do they cause warts? (they don't) _____
8. What are the little lumps on the toad's skin? (gland) _____
9. How does the story describe the toad? (friendly, harmless, good-natured)

_____

10. What color is a toad? (brownish-gray) _____

Total number of words 105

Total words missed _____ Percent _____

Total questions missed _____ Percent _____

Readability

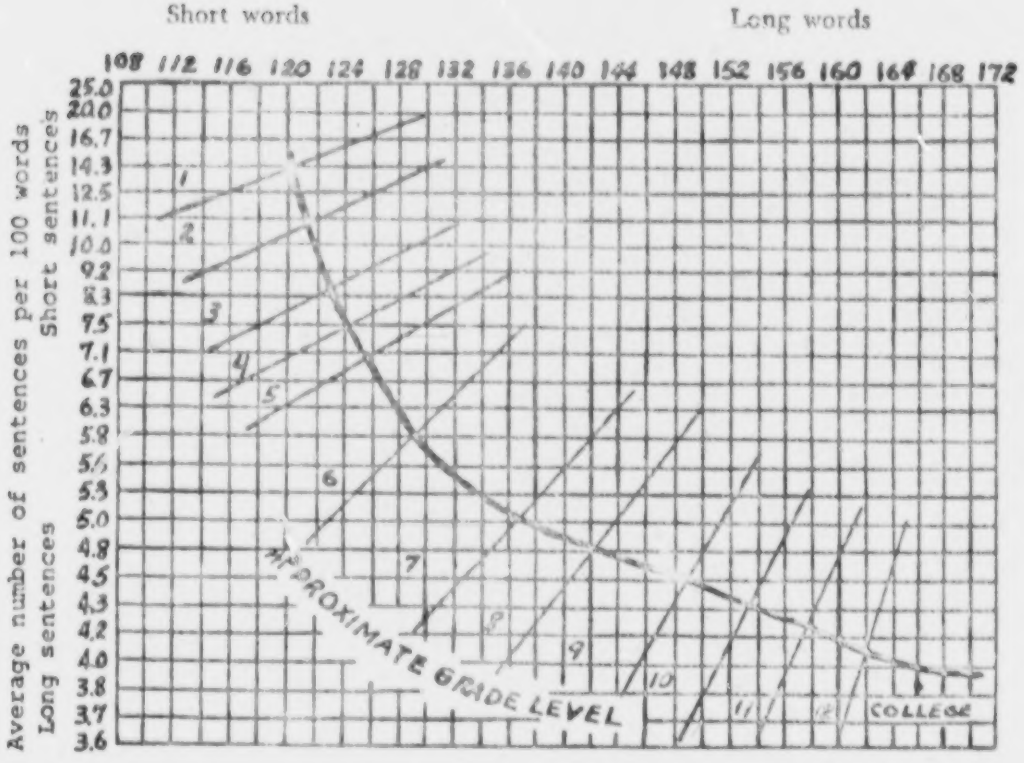
A concern in selecting materials is that they truly represent the desired reading levels. Readability formulas have been used to determine reading levels; however, most well known formulas, such as the Dale-Chall Readability Formula, and the Spache Readability Formula are lengthy and quite time consuming. Fry presented a "Readability Formula that Saves Time" which utilized a graph. (See Table I.) Because of high correlations with other accepted formulas, this graph is of great use for determining the reading level of books.

TABLE I

Graph for Estimating Readability

by Edward Fry, Rutgers University Reading Center

Average number of syllables per 100 words



DIRECTIONS: Randomly select 3 one hundred word passages from a book or an article. Plot average number of syllables and average number of words per sentence on graph to determine area of readability level. Choose more passages per book if great variability is observed.

Note: The Readability Graph is not copyrighted. Anyone may reproduce it in any quantity, but the author and the editors would be pleased if this source were cited.

The preceding selection about "Toads" can be used to demonstrate how Fry's formula may be used to determine the readability of individual selections.

Number of words = 105

Number of syllables = 136

Number of sentences = 8

Formula:

$$\frac{100 \text{ (number of syllables)}}{\text{number of words}} = \text{average number of syllables}$$

$$\frac{100 \text{ (number of sentences)}}{\text{number of words}} = \text{average number of sentences}$$

OR

$$\frac{100 \ (136)}{105} = 129.5$$

$$\frac{100 \ (8)}{105} = 7.6$$

READABILITY - - - - - 5th GRADE

Administering the IRI

The following procedures are suggested for administering an informal reading inventory:

1. Establish good rapport with the student.
2. Oral sight reading and comprehension check to determine oral independent, instructional, and frustrational reading levels.
3. Silent reading and comprehension check to determine silent independent, instructional, and frustrational reading levels.
4. Listening level (thought by some to be the potential reading level) determined when the student responds correctly to 75-90% of the questions after listening to selection.

Marking System for Oral Reading

To make the most of the testing situation, the teacher must be competent with a notational system which will permit him to record quickly and accuractely reading errors.

1. Circle all omissions.
2. Insert with a caret (^) all additions.
3. Draw a line through words for which mispronunciations were made; write above, phonically, the mispronunciations.
4. Write "p" over the words pronounced by the teacher.

Markings for the above listed types of errors are counted. Percentages are computed, and together with percentages obtained from the questions are compared with criteria for judging the student's reading performance (see pages 1-3). Table II presents percentages for each reading level.

TABLE II

READING PERFORMANCE CRITERIA

READING LEVEL	WORD PRONUNCIATION	COMPREHENSION
INDEPENDENT	98 - 100%	90%
INSTRUCTIONAL	94 - 97%	75 - 90%
FRUSTRATIONAL	-90%	-50%

Toads

You will ~~probably~~ prā P be surprised to know that toads 1

make interesting pets. These harmless P little creatures Kuh P 2

do not bring us bad luck as some people think. The

toad is really one of our best friends and not an

enemy at all.

Toads are nice people, harmless, ~~good natured~~ good for you and 1

friendly. They come to our gardens and ~~doorsteps~~ dormatories 1

because they can find food there. In return for a

safe hiding place under the ~~doorstep~~ du P or a bush, one 1

toad will eat ~~thousands~~ hundreds of harmful insects, worms 1

and slugs during the summer.

Toads do not cause warts. The little ~~lumps~~ bumps on a toad's 1

skin are tiny P glands. 1

9

Comprehension Questions

1. Why do some people think toads bring bad luck? (stories handed down cause superstition -- or any appropriate answer) d.K. (don't know)
2. Are toads harmful? (no) no
3. Is a toad our enemy? (he isn't) no, they are not our enemy
4. Why do they come to our gardens? (food) be our pets
5. What do they do for us? (eat thousands of insects, worms, slugs) eat bugs and slugs and worms
6. Where do they like to hide? (under doorstep or bush) d.K.
7. Why do they cause warts? (they don't) they don't cause warts
8. What are the little lumps on the toad's skin? (glands) bumps
9. How does the story describe the toad? (friendly, harmless, good-natured) harmless and friendly

10. What color is a toad? (brownish gray) Kind of brown

Total number of words 105

Total words missed 9 Per cent 9%

Total questions missed 4 Per cent 60%

Reading Level FRUSTRATIONAL

Subjective judgment by the teacher is necessary when a reading performance will not neatly fit the specified objective criteria. Usually, a safe rule of thumb is to lower the reading difficulty level to the next lower level when a discrepancy occurs. For example, if testing on a sixth grade selection reveals 95% accuracy on word pronunciation (suggesting an instructional level), and only 50% accuracy on comprehension (suggesting a frustrational level), then, to avoid the risk of placing the student in too difficult material, the reading level would be considered as being frustrational, not instructional.

The IRI is not without problems; however, it is a very useful diagnostic tool which will help provide a clear picture of student's reading problems -- necessary for providing appropriate learning activities for students.

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INFORMAL DIAGNOSTIC TECHNIQUES

Mabel S. Clayton
Utah System Approach To Individualized Learning Project

Something that is worth doing, is worth doing well. To improve performance look at the performance critically; find the steps that are faulty; then plan how to practice to gain improvement where it is needed. The activity might be hitting a target, adding figures, introducing friends, teaching chemistry, relieving tension, building motivation, or reading a book. The process is the same: observe the performance; pinpoint the failures; plan activities that help; practice; then, measure improvement.

Any observed performance can be diagnostic. How diagnostic the observation is depends on four variables: (1) knowledge of what is to be observed; (2) the exactness with which the situation is structured; (3) the objectivity of the observation and the recording; and (4) how critically and precisely the crucial steps that spoil the performance are defined. Of course, practice and the training of the observer make a difference, but all of us do diagnosis every day. When we criticize our own or a child's behavior, we are being diagnostic if the criticism is specific, pinpoints the crucial good and bad elements, and directs attention to possible improvement. There is one particular kind of diagnosis that seems to be essential.

Diagnosis is needed more with the skills than in any other area. How well we grow through reading, our success socially, financially, emotionally, all depend on the skills at our command. The skills might be physical, social, occupational, intellectual, conceptual, or the way we handle our emotional lives. Particularly, as teachers of reading, we are more concerned with diagnosing the skills in reading so that the child may grow more and more through reading. It is the purpose of this paper to suggest some useful informal ways to improve.

What Needs to be Observed

In reading, what are the skills that make a difference? What specifically needs to be observed? Of course, this will be different at different levels of reading. However, since the skills are on a continuum, a general observation of the reading activity soon indicates where specific diagnosis of skills is needed.

The first step is to know the range and breadth of the reading activity of the group. Structure a free reading time. Do children go to books eagerly, open them with confidence? Do they pick books with pictures or without pictures? How "fat" are the books chosen? Do they choose stories or factual books? Do they preview factual materials before reading? How difficult are the books they read? How do they share their reading? What do their comments tell you about their comprehension, penetration, language and thinking development? This kind of observation helps to narrow what specific skills need to be observed. Remember, first comes an observation that allows a broad range of activity such as reading, writing, and arithmetic. This gives us the variety and roughly indicates types of skills needed for the activity.

Now, we begin to refine our observation. We must decide what areas need to be observed. We limit our observation according to: (1) differences that affect learning and that can be improved; (2) differences that hinder growth in reading; (3) differences not measured by standardized tests; and (4) the differences we know how to measure and how to improve.

For instance, if a learner is a very slow reader, we know this affects learning; that it can be improved; that factors such as word recognition, visual memory, and lack of understanding of sentence structure may be interfering; that these are not specifically measured by the usual standardized tests; that each of these can be measured and improved.

We go from the broad observation to measuring narrowly and specifically the factors that interfere. If a child of eight reads slowly, chooses mostly picture books, has poor comprehension, we want to know what produces this behavior. Can he read the words? We give him a list of possibly twenty-five words of graduated difficulty to read. If he can't pronounce these at a

satisfactory level, does he know his letters? We dictate a short sentence with all the letters in it. (See Test No. 1) If he can't write the dictated words, does he know all the letters by name and sound? Thus, we follow through to pinpoint the difficulty.

Test No. 1
WRITING LETTERS IN CONTEXT

Teacher dictates the sentence slowly while the children write it. (It is permissible to spell-out occasional words. No words or letters should be visible or on the board at the time.)

Form 1: The big yellow fox jumps quickly over the sand into the zoo.
Form 2: The big lazy girl was not quick to jump and fix the oven.
Form 3: John was quick to fix every one of my big puzzles.
Form 4: The black fox jumps quickly over the wing of the lazy duck.

Children who fail letters should be given letter mastery tests.

If a high school student reads slowly, we watch to see if his lips or throat move during reading, if his eyes regress during reading. Is his comprehension adequate (Eight correct out of ten questions)? To pinpoint the problem, a spelling test might be given, including a few high-level phonetic words. Does he miss words of high frequency that aren't spelling demons (a key to visual memory)? Does he spell the phonetic words phonetically, not necessarily correctly (a key to phonic understandings)? Where does he score on the spelling test? Can the student quickly pick from a long sentence the key words that carry the thinking (a key to knowledge of sentence structure)? Has he read very little in his life (a key to habituation of the reading act)? The answers to these questions will pinpoint the crucial steps that need to be attacked to improve reading speed.

Structuring the Observation

Time, cost, and energy are limiting factors. Also, diagnosis is to help teachers and learners to simplify, individualize, and promote the learning act. With this in mind, some criteria can guide the way to structure for observation.

We try to measure: (1) with simple, inexpensive methods; (2) in groups wherever possible; (3) in as brief a time as possible; (4) with as little labor as possible for teachers and children; (5) in a challenging and interesting format; (6) in a form easily interpreted that leads directly to action; (7) with short sub-tests that can be given with immediate knowledge of results by teachers and students, used as motivators to learning.

In diagnosing the vast majority of children, no expensive equipment or materials are really needed.

Practically all tests of reading sub-skills can be measured in groups. The exceptions are oral reading, and actual word and letter pronunciations.

By a little exploration of methods, time required can be greatly reduced. For instance: In measuring knowledge of syllabication, a two-minute test, immediately scored by the students, was found to be as effective in diagnosis as a test taking more than one hour to give and correct. (See Test No. 2) A ten-minute test of usage of five multi-meaning words is an effective measurement of flow-of-ideas. (See Test No. 3) One dictated sentence effectively screens ability to write letters in context. (See Test No. 4) These are a few examples.

Test No. 2
SYLLABICATION TEST

Instructions: Teacher writes the words on the board but does not pronounce the words. Say, "Write the number of syllables you think are in each word."

Examples: entertainment 4;

Intermediate	Advanced
1. through	1. examination
2. into	2. chance
3. revolution	3. representative
4. following	4. national
5. company	5. pronounce
6. straight	6. understandingly
7. open	7. classification
8. everything	8. tablespoonful
9. yourself	9. coming
10. interestingly	10. majority

Answer Key:

1.	1	1.	5
2.	2	2.	1
3.	4	3.	5
4.	3	4.	3
5.	3	5.	2
6.	1	6.	5
7.	2	7.	5
8.	4	8.	4
9.	2	9.	2
10.	5	10.	4

Interpretation:

10 correct is very good
8 correct is borderline
Below 8 needs help.

Prepared by: Dr. Mabel S. Clayton

Test No. 3
FLOW OF IDEAS TEST

Instructions: Using run, show students that often little words have many meanings. Let students give examples of different meanings of run. (Phrases are sufficient: definitions are not needed.) Say, "Now, I want to see how many different meanings you can think of in ten minutes. Every two minutes I will say and write a new word on the board. Write as many different uses of each word as you can. Ready." Write the first word. Every two minutes, erase, say and write a new word on the board.

Form 1	Form 2
make	line
draw	drive
light	break
out	over
round	take

Interpretation and Scoring: Count the total number of different meanings for all five words. Rank the class from highest to lowest to know the relative standing of students on the test. All will profit from classifying multi-meaning words, but the lower third will need more preparation before attempting the multi-meaning word classification: more teacher guidance.

Test No. 4
HANDWRITING TEST

(Use sentence in WRITING LETTERS IN CONTEXT after that test has been given.)

Instructions: Write the sentence on the board. Ha the children copy it three times. Then have the children write it as many times as possible in three minutes.

Scoring: Judge the speed by the number of letters written in the last three minutes. Judge breakdow under pressure in difference between copying and speeded part of the test.

Norms on Handwriting:

Grade	Letters/Minute	Form	Number Letters
2	25	1	48
3	35	2	44
4	45	3	39
5	55	4	47
6	65		

Check on Handwriting Problems:

___ Poor Letter Formation. ___ Slant Irregul
___ Uneven Size of Letters. ___ Speed Slow.
___ Spacing Uneven.

Objectivity in Measurement of Needs

Many teaching situations, using every-pupil response, can be devised to give teachers and learners precise knowledge of needs. No teacher time is required for scoring papers, and knowledge of results is immediate. These are great advantages. What is meant by every-pupil response? Here are a few examples: (1) With the fingers, or with five numbered cards, each child can show his choice of five possible answers. "Which of the five words means a little animal that flies at night?" "In which of the five countries listed and numbered on the board would you find _____?" "Where in these four Shakespeare plays will you find the following _____?" (2) With "S" and "O" cards the students can indicate whether two words or ideas are similar or opposite in meaning. (3) With "yes" - "no" cards, or by raising the right hand when in agreement, true-false items can be shown. (4) By sign symbols, the process needed to solve an arithmetic story problem can be indicated, giving extensive practice in a few minutes. The signs might be arms crossed horizontally-vertically for addition, a horizontal arm for subtraction, a horizontal arm bracketed by two pointed fingers for division, the arms crossed diagonally for multiplication. (5) Children showing their answers on slates is another method that is good and practical. Errors can be noticed and corrected immediately.

Children can be moved up nearer the teacher if they are hesitant or too busy getting their answers from others. No criticism is made. In fact, this is one way we all learn. Just say, "I want to be sure you can see;" or "Come up closer so we can work together." Immediate varied assignments of constructive learning activities to suit needs can follow the observation or discovery time.

Learners accept, enjoy, and respect this kind of activity.

Practice Where Needed

Learners are motivated to work to improve their skills by an obvious demonstration of their needs. This is especially true if failure is valued and shown to be the true beginning of something better. The teacher says, "We know just what to do now." Goals are set. Observable progress toward a goal gives satisfaction. Ease and entertainment become less important.

Then, all we need are a few rules for practice, which must always be preceded by meaningful teaching. (1) Practice must be on material that will make an action automatic. (2) Practice must have meaning, meaning gives purpose to practice. (3) Practice, at first, must have diagnostic emphasis. (Eliminate error. Target in to practice on those things the child doesn't know. (4) Emphasize accuracy first, then speed. (5) Practice periods must be short and fairly frequent. (6) Practice must be lively, interesting, pleasant. (7) It must be done under some pressure. (Time, competition, etc.) (8) Must eliminate wasteful non-essential activity. (9) Best results are obtained under a small amount of emotion. (10) The things being practiced, must be apparent to the pupil. (11) Practice must be adjusted to individual differences. (12) It must require less and less supervision of the teacher as skill is developed. The pupil must assume responsibility.

I wish to close with a word of caution about skills and their importance. Skills in reading and thinking are essential to growth and progress through reading. On the other hand, skill improvement takes less and less time as growth through reading becomes possible. In the final analysis, it is the depth and breadth and true enjoyment of reading that is of prime importance. Skills are the tools, but only the tools, that make all the rest possible.

MEASURING THE UNMEASURABLE

Huberta V. Randolph
Salt Lake City Public Schools

It has been said of reading that the important thing is not whether a child can read but whether he does read. I agree that a skill not used is of little value. But our concern as teachers of reading has to exceed the use of skill. Enjoyment, depth and breadth of reading, those facets of reading that contribute directly to effective living, should be our focus.

Can we assume that an individual who reads enjoys reading? In reading a story, a poem, or a play does the reader get involved emotionally, identifying with the characters and projecting himself into the situations? Enjoyment comes from living and feeling what one reads, relating personal experiences to those he is reading.

Since reading deals with meaning, logically organized materials must be read with the mind. The reader must become intellectually involved. He must question, seeking in depth the author's meaning; he must compare and contrast ideas being read with what he already knows; he must evaluate in the light of his own experience. Reading in depth requires thinking while reading.

Reading is a means of expanding experience. Through reading a wide variety of sources and exploring the different subject areas, the learner not only broadens his knowledge, but he vicariously lives new experiences. The more experience, either first hand or vicarious, that an individual has to bring to the printed page, the more personal meaning he takes from it. Breadth of reading gives foundation for greater depth of reading.

If learning is defined as the developing and changing of behavior, can we expect to promote learning if we do not identify and specifically define those behaviors we want children to learn? Dr. George Odiorne in his book, Management Decisions By Objectives, [1] states that any behavior that cannot be counted, measured, or described probably cannot be taught.

[1] George Odiorne, Management Decisions By Objectives, Prentice-Hall, Inc., Englewood Cliffs, N. J., 1969, page 27.

Teachers of reading, when asked to list their objectives, place enjoyment and depth of reading as high priorities. Research has shown that there is a wide gap between what is stated as priorities and what is actually done in the classroom. Is this gap a result of our not having defined clearly the behaviors we want to develop?

For some time, a controversy has been going on between the humanists and the behavioralists over the use of behavioral objectives in the teaching of reading beyond the skill level. The humanists claims that many facets of reading such as enjoyment and appreciation are not quantifiable; hence, they cannot be measured. These facets cannot be measured objectively by means of linear measurement using pencil-paper tests and determining standard scores, means, norms and standard deviations. But if the validity of subjective measurement such as observation and surveys, is accepted, I believe we can identify some behaviors that indicate whether or not a child reads widely with depth and for enjoyment. These behaviors can be assessed through observation. I recognize that when we use the observation of overt responses as a means of measurement that we are dealing with only a small part of what is going on when people respond to reading. The observable utterances and actions are only indicators of what is actually taking place and cannot be taken as accurate, valid measures. The results of any measurement of human intelligence or behavior whether obtained from a standardized test or from the use of any other measuring instrument are only estimates not precise measurements of the individual's performance or ability.

In an attempt to identify behaviors that relate to performance beyond the use of skill, I asked: What does an individual who enjoys reading and who reads widely in depth do that is not done by one who doesn't exhibit these qualities? The behaviors listed are the answers I arrived at in pursuing the question. This is not a definitive list but only a beginning. The individual will not do all these things, but he will do many of them.

The pupil reads at least one book a month of his own choosing.

The pupil of his own volition visits the library two or three times a week to browse and read.

The pupils voluntarily visits a book store at least two or three times a month to browse or to purchase a book.

The pupil is building a personal library which includes a variety of selections.

The pupil reads book "blurbs" and reviews.

One-fourth of the pupil's leisure time is spent in reading.

The pupil has a book, a magazine, or some other reading material accessible to read in case of a few spare minutes.

When given a choice of activities such as seeing a film, listening to a recording, or reading, the pupil chooses to read.

The pupil of his own volition shares ideas gleaned from personal reading with his peers, his teacher, or the librarian.

The pupil demonstrates a sensitivity to human feelings and actions by relating what happens in stories to similar situations in life and vice-versa.

The pupil voluntarily shares ideas from different sources.

The pupil shares ideas from several different areas of reading such as science, history, art, and literature.

The pupil relates ideas gleaned from personal reading to topics being discussed by comparing and contrasting, by drawing inferences and conclusions, making predictions, and evaluating.

A four-point scale of measurement to determine the frequency of occurrence of the behaviors is suggested. This gives a range from no occurrence to frequent occurrence. It is the frequency of occurrence that measures the performance.

Enjoyment, breadth, and depth of reading should be priorities in every list of reading objectives. Behaviors, exhibiting these qualities, can be identified and measured through observation. The results are good indicators of our success. These behaviors, if opportunities are provided for their development, will be exhibited early in the child's educational experience and will become more apparent as the child matures. The individual who enjoys reading, who reads widely and with depth will not only read but will use reading as a means of enhancing living.

Table I. Observation Sheet To Determine the Frequency of Occurrence of Behaviors Exhibiting Enjoyment Depth and Breadth of Reading.

Behaviors	Has Never Occurred	Occurred Once or Twice	Occurred Occasionally	Occurred Frequent
The pupil reads at least one book a month of his own choosing.				
The pupil of his own volition visits the library two or three times a week to browse and read.				
The pupil voluntarily visits a book store at least two or three times a month to browse or purchase a book.				
The pupil is building a personal library which includes a variety of selections.				
The pupil reads book "blurbs" and reviews.				
One-fourth of the pupil's leisure time is spent in reading.				
The pupil has a book, a magazine, or some other reading material accessible to read in case of a few spare minutes.				
When given a choice of activities such as seeing a film, listening to a recording, or reading, the pupil chooses to read.				
The pupil of his own volition shares ideas gleaned from personal reading with his peers, his teacher, or the librarian.				
The pupil demonstrates a sensitivity to human feeling and actions by relating what happens in stories to similar situations in life and vice-versa.				
The pupil voluntarily shares ideas from several different sources.				
The pupil shares ideas from several different areas of reading such as science, history, art, or literature.				
The pupil relates ideas gleaned from personal reading to topic being discussed by comparing and contrasting, drawing conclusions or inferences, making predictions or evaluating.				

DETERMINING THE SIZE BEFORE TRYING IT ON FOR FIT

Morris L. Mower and Gail Johnson
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Hi! Come on in. Welcome to our sixth grade class. Before going home after school, I have been spending a few minutes preparing the material for a lesson in health. The unit is entitled, "How Has Man Fought Disease?" One of the things I have been doing is computing the readability level of this chapter. I want to know whether my sixth grade students can read it. Let me outline what this determining of the readability level entails.

I have been using the Dale-Chall Readability Formula. First, I count off a hundred word sample. Second, I determine the number of sentences in the sample. Third, I determine the number of unfamiliar words using the Dale List of 3,000 Familiar Words. Fourth, I compute the raw score; and fifth, I convert the raw score to the readability level. Now there are other readability formulas that could have been used. I'll explain later the reason for using this particular formula.

In the first sample from this chapter, the basic data is: 1) the number of words is 120 because it was necessary to finish the sentence in which the one-hundredth word occurred. 2) there are ten sentences. 3) there are 17 words not on the Dale List. 4) the average sentence length is 12 words. 5) the raw score obtained from the Table utilizing the average sentence length and the number of words not on the Dale List is 6.92. 6) the readability of raw score of 6.92 is seventh - eighth grade. Keep in mind this book was written for sixth graders.

The second sample turned out to have a readability level of ninth - tenth grade. The third sample also figured out to be ninth - tenth grade level and the fourth sample turned out to be seventh - eighth grade level. That presents a problem. I simply can't put on the board, "Read the chapter and answer the questions at the end" because I know from the results of the Informal Reading Inventory there are some students who simply cannot read this material. There are students in my sixth grade class who I know cannot read at the seventh or eighth or ninth or tenth grade level.

Some cannot even read third grade level material, but I do have about five children in my sixth grade who can read this chapter effectively, but 25 children cannot. Therefore, I must provide some alternative routes of instruction for the rest.

Now to answer why the Dale-Chall Formula for predicting readability was used. I used the short form and in the process of using this Formula I had to underline the unfamiliar words in the text. I did this in the teacher's edition. Those words that may be unfamiliar to some students are already identified. Undoutedly, some of these words which have been underlined as unfamiliar will indeed be familiar or they may be in the speaking vocabulary but not in the reading vocabulary of some students. If this is the case, then let us consider these as special vocabulary words. The approach for mastery of them could be by such means as flashcards, presenting them as sight words, working with prefixes, suffixes, and root words for getting the pronunciation and appropriate meanings. The student will determine which words he does not know and work on them. The real test will come when he reads the chapter. Because I, as the teacher, think the information in this chapter is important for all the students to know, another alternative would be to record this chapter on a cassette recorder. Those students who need to listen and read along will be able to get the information that way. The recording will have: 1) the objectives of studying this chapter in the form of six questions to answer. This serves as a guide for the student to follow and gives a purpose for studying, 2) the eight pages of written material, followed by 3) five Check-Yourself Questions, and 4) the two special research topics. Those few students in the class who need this type of help may play the tape as many times as necessary and there will be no trace of voice inflection indicating teacher's irritation or impatience should the student need ten repetitions of the tape. The reason for having them read this lesson was that they would be able to get the concept expressed by the writers of the textbook. Through this additional help, the teacher will be able to more nearly assure that the desired understandings are more nearly obtained by all the students.

The teacher edition certainly has taken on a new look and has two very valuable additions. 1) the readability level has been determined for the textbook material, and 2) the possible unfamiliar words have been identified. In my opinion this is a very good health book for sixth grade boys and girls. It is just too bad that most of my kids can't read it. The reading level is from the seventh to the tenth grade level in this chapter which is very typical of many content area books. A teacher needs to determine the readability level of all of the content material used in his classes. If you feel you do not have time to do all this yourself, you can teach boys and girls to help. If you would like to learn how to use this formula, give us a call or write us a note and we will be glad to help you. You could learn to do it in about thirty minutes. It has been nice to have you visit. If we hurry we can still get out of here before four o'clock.

EVALUATING READINESS FOR READING

Darlene Ball
Salt Lake City Schools

Until a few years ago, a widely accepted belief was that children must reach a mental age of approximately six and one-half years to succeed in beginning reading. The ability to begin reading was thought to be part of an unfolding developmental cycle, one which was dependent primarily upon maturation, and which could not be hurried. Time and experience have shown that children can learn to read much earlier than was commonly believed. Indeed, some children who are exposed to television, learning games, travel, books, helpful older children and interested adults come to kindergarten already beginning to read.

As early as 1936, Arthur I. Gates and Guy Bond concluded from their research, that "the optimum time of beginning reading is not entirely dependent upon the nature of the child himself, but it is in a large measure determined by the nature of the reading program.[1] A number of well-publicized experiments have shown that children can be taught to read at three, and it has become somewhat fashionable to say that the earlier a child is taught to read, the easier it is for him to learn. While this statement contains an element of truth, it cannot be applied uniformly to children any more than can the previous generalization that successful reading requires a mental age of six and one-half.

Many children are ready to read in kindergarten, but each child should be evaluated individually by his teacher to determine his readiness for reading. Along with this assessment, which goes on both formally and informally, the teacher should have a definite program for making certain that children are taught the necessary skills.

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[1] Arthur I. Gates and Guy Bond, "Reading Readiness: A Study of Factors Determining Success and Failure in Beginning Reading," Teachers College Record, XXXVII, May, 1936, p. 680.

Informally, the teacher can determine if the child reads his own name, and if he recognizes the names of several other children in the class. Does he know the names of at least half the letters of the alphabet? Does he know the sounds associated with the letters? Does he show an interest in the books around the room, and will he listen to a story read by an adult? Paper and pencils should be freely available in the kindergarten classroom, as some children come to reading through copying words, asking for help with spelling, and beginning to read what they have written. Does the child have this interest?

Oral language facility and adequate motor and perceptual skills contribute to more effective learning. Oral language can be assessed as the teacher listens to children talk to each other, as opportunities are provided for discussion and description, and as stories are retold. Much can be learned from observation about a child's gross motor behavior and his visual and auditory perception, but use of a check list enables a teacher to make an assessment in several areas, as well as to pinpoint weaknesses for additional practice. The schedule which follows is useful for this purpose.

MOTOR AND PERCEPTUAL SKILLS CHECK LIST

Name _____

School _____

Teacher _____

	Check When Pupil Has Skill
Identifies body parts:	
Touch head	
Touch toes	
Touch eyes	
Touch shoulders	
Touch ankles	
Touch elbows	

	Check When Pupil Has Skill
Gross Motor Coordination:	
Hop on right foot (4 hops)	
Hop on left foot (4 hops)	
Skip	
Walk a straight line (8')	
Walk balance board (6' x 8" high)	
Walk backward 10 steps	
Step over yardstick (child's knee height)	
Go under yardstick (2" below child's shoulder)	
Visual Perception:	
Match single forms for shape and color (square, circle, triangle, rectangle)	
Match shape pattern by sight (4 shapes)	
Match shape pattern from memory (3 shapes)	
Draw shape pattern (3 shapes by sight)	
Draw shape pattern (2 shapes from memory)	
Pick out all the blue beads (5-10 of 30)	
Match bead pattern (12 beads)	
Show 4 small objects, cover 1. "Which one did I hide?"	

	Check When Pupil Has Skill
Auditory Perception:	
Count the number of claps: (Back turned) Two Five Three	
Which sound is higher: (Hum or whistle two tones. Repeat three times, vary order)	
Do these words sound exactly alike? pen - pen fit - fat run - ran lot - lot bad - dad cut - cup him - hum sat - sat pot - cot jam - jag	
Clap the pattern you hear: --- - --- --- - - - - --- --- --- --- - --- --- - - ---	
Repeat these numbers: (One second interval) 8 - 3 5 - 2 - 7 9 - 6 - 1 - 4	

Spatial Perception:	Check When Pupil Has Skill
Put the green block in front of the red block.	
Put the red block on top of the green block.	
Put the green block beside the red block.	
The green block is _____ the red block. (by, beside)	
The red block is _____ the green block. (under, below)	
Tactile Perception:	
Show six objects, put in paper bag. Return object to bag after each identification.	
Find the one that is rough. (Sandpaper)	
Find the block.	
Find the plastic lid.	
Find the peg.	
Find the triangle	
Find the penny. (Give to child)	

The interrelatedness of reading readiness and early reading instruction is summarized by Dolores Durkin:

> . . . . The answer to 'when to begin' will be affected by the kinds of reading that can be made available to children . . . A child's readiness to read is a reflection not only of his own capacities and interests, but also of the degree to which a school's instruction is able to accommodate both . . . Most kindergarten or first grade children are probably neither totally unready nor ready to begin to read . . . What these varied capabilities suggest, quite obviously, is the need for both schools and reading specialists to give increased attention to finding those instructional forms that provide the best match for the capacities and interests of the children to be taught.[2]

[2]Dolores Durkin, Teaching Them to Read, Allyn and Bacon, Boston, 1970, p. 43.

INSTANT ERROR DIAGNOSIS AND PRESCRIPTION

Ethna R. Reid
Exemplary Center for Reading Instruction

When a classroom teacher diagnoses incorrect responses of pupils in reading and prescribes activities to correct these responses, he produces more accurate readers. Diagnosis and prescription, however, should be a part of the daily reading lesson and not merely an occasional formal activity.

Since diagnosis is the identification of an incorrect reading response and the possible word recognition skills which are lacking to produce the incorrect response, a diagnosis checklist can save time for teachers. The sample diagnosis checklist included here can be revised by teachers to include those skills taught by the teacher and/or reading programs he uses. (See Table I). Skill deficiencies, then, based on a tally of errors from the diagnosis checklist, are quite obvious. Activities to teach the missing skills are then prescribed.

TABLE I. Analysis of Reading Errors

					Mispronunciations																											
					Phonics														Word Structure								Other					
	Omissions	Repetitions	Insertions	Mispronunciations	Initial consonants	Medial consonants	Final consonants	Blends	Digraphs	Schwa	Short vowels	Long vowels	Diphthongs	Vowel + r	Long and short oo	Vowel + w or l	Vowel teams	Homophones	Plurals	Inflectional forms	Prefixes	Suffixes	Compound words	Syllabication	Contractions	Possessives	Reversals	Substitutions (context)	Familiar forms	Impulsive guesses	Sight word

Many teachers prescribe activities after error types are recorded for a pupil, for a day, several days, or a week's time. Diagnosis and prescription can also be an "instant" process. Following is one method a teacher might use to diagnose and prescribe instantly for a pupil who makes errors in his oral reading.

Step 1. Write the word that a student does not read correctly on two oak tag flash cards (3" x 4"). Write it also on the student's record card. On the record card write what he said for what he should have said.

Case 1		Case 2		Case 3		Case 4	
sniff	sniff	sniff	sniff	sniff	sniff	sniff	sniff
RC-Nip/sniff		RC-Nip/sniff		RC-Nip/sniff		RC-Nip/sniff	

Step 2. Ask the student to read the word from one of the flash cards.

sniff	sniff	sniff	sniff

Step 3. If he pronounces the word correctly, do not go through more steps. Give him one card. Add one card to his set of cards at school to review with him daily.

Step 4. If he mispronounces the word the second time, record the word he said for what he should have said on the student's record card.

RC-snoff/sniff	RC-Nip/sniff	RC-snaff/sniff	sniff/sniff (That's correct!)

Step 5. If it is a sight word and he mispronounces it the second time, tell him the word. Have him pronounce it repeatedly. Use it in sentences for him. Ask him questions about the word to elicit his understanding of its meaning. Ask for multiple correct responses of the word for ten seconds. If the word can be obtained from the context of the sentence, ask the pupil to read the sentence again and discuss its meaning. Give him one card. Add one card to his set of cards at school to review with him daily. Do not go through more steps.

Step 6. If he mispronounces the word the second time, and it's not a sight word, ask him to sound it out if he has learned the sounds previously. Prompt him to recall sounds.

s-n-ŏ-f/	n-ĭ-f/	s-n-ă-f/	(Not needed)
s-n-ĭ-f	s-n-ĭ-f	s-n-ĭ-f	

Step 7. If he is unable to sound out the word independently, put each sound of the word that was missed (e.g. initial consonant, blend, vowel) on a separate card. If the error is in vowel discrimination, put the vowel that was said and the one that should have been said on separate cards. (Only do this if the substituted vowel has not been previously taught, do not make a card for it.)

ĭ	sn	ŏ	(Not needed)
		ĭ	

Step 8. Have the student reproduce the sounds in isolation from the cards until he says the sounds correctly.

Step 9. On cards write words he has learned previously which contain the same sounds he is reviewing to check the maintenance of the sound. Have him identify the key sound being reviewed in these words.

in	(none)	in	an	(Not needed)
pin		pin	pan	
tin		tin	tan	
sit		sit	sat	
pig				

Step 10. Write on cards words he has not been introduced to which contain previously learned sounds and sounds being reviewed to check transfer.

lit	snap	Sid	pad	(Not needed)
pit	snip	lit	tam	
		pit	dad	

Step 11. Write the word mispronounced in sentences for the student to read.

(Use only words learned previously in sentences.)

For the first 3 cases:

Ann can sniff.

Sam can sniff.

Nip can sniff.

Nip sniffs.

Nip and Tab sniff.

Can Nip sniff?

Did Nip sniff Sam?

Sniff the mint.

Ask questions about the meanings of the word.

Step 12. Have the student read the word card to you until he can read it with ease. He will practice the word alone as well as with other words which have gone through these steps.

(Not needed)

Diagnosis and prescription for errors in comprehension and study skills can also be instant.

KEEP IT SIMPLE!

Maurine Jones
Utah System Approach To Individualized Learning

So you want to find a way of keeping track of learners and keeping your sanity at the same time! That is certainly a worthy objective -- on target and cognizant of reality! The dilemma is, of course, finding a way to do both.

If there were one best way, record keeping or keeping track of learners would be simple! But the fact is that there are many ways and you best know your own unique needs. Whichever way you adapt or adopt, whatever tailoring you do to meet the needs of your learners and yourself as the teacher, you still will be looking for certain ingredients.

First, determine the skills, concepts or behaviors you think learners should master to reach the end goal. You will be defining reading as you itemize these skills or concepts.

Find them in:

a. your head
b. teacher textbooks
c. curriculum guides
d. project publications

List the major categories. (i.e., Main Idea, Noting Detail, etc.)

Under each major category:

a. List the skills in sequential order so that "building blocks" are established. A building block constitutes what must be learned as a foundation for the next learning.

Secondly, determine what is the maximum number of discrete items that could be realistically recorded and maintained.

Screen the list by determining:

a. your time constraints
b. any assistance you might have such as aides, volunteers, etc.
c. pupil independence to keep his own record

Remember the key! KEEP IT SIMPLE!

Third, determine the measurement (performance objective) which will allow you to know whether or not the learner has mastered the skill, the concept or the behavior.

Note what the student performance will be:

a. What will he learn?
b. How will he do it?
c. How well will he do it?

You now have the ingredients for a record and a way of keeping track of learners. This record is really a retrieval system because it will allow you to "retrieve" information about the learner as you keep track of what he has mastered.

Chart the retrieval system by listing the names of the pupils down one side of the paper. Across the top of the paper list the skills, concepts or behaviors to be mastered. It will look something like this:

	Skill, concept or behavior	Skill, concept or behavior	Skill, concept or behavior	Skill, concept or behavior									
Name													
Name													
Name													
Name													

As the student demonstrates mastery of a particular skill or concept (according to specification of the performance objective: WHAT, HOW, HOW WELL) put a check or hash mark in the square by his name. Your retrieval system is now operational and you are on your way! Because what you did was to:

1. Decide what skills or concepts were to be learned.
2. Determine which skills or concepts needed to be recorded (thereby keeping the list manageable and workable!)
3. Decide what the performance of learners should be to measure mastery.

And translated into education jargon, you now have:

1. A continuum of skills, concepts or behaviors.
2. The critical skill minimums.
3. Performance or behavioral objectives.

BUT the important thing is that you have a retrieval system which will help you keep track of the continuous progress of learners. One that is simple. One that you can manage effectively and efficiently!

Now if you want to get extra mileage out of this retrieval system, you can take another step.

First, number each skill on the continuum.

By numbering the skills you are setting up a code which will:

a. be marked on curriculum materials
b. be marked on testing materials
c. be the index or device for filing and organizing your teaching aids.

The chart now has an added dimension. It looks like this:

	Skill 1	Skill 2	Skill 3	Skill 4	Skill 5	Skill 6				
Name										
Name										
Name										
Name										

Second, collect your teaching aids together.

This means you will gather:

a. games
b. charts
c. worksheets
d. pictures, etc.

Third, determine which materials are better designed to test a specific skill or whether they are practice materials and help to teach a specific skill.

Separate them into:

a. materials for testing
b. materials for practice, drill.

Fourth, check the retrieval system and mark the materials with the corresponding number on the retrieval system.

Mark all the materials that relate to a particular skill with the identical number of that skill as it appears on the retrieval system.

Keep the two kinds of materials in separate files:

a. one composed of testing materials
b. one composed of practice materials

By now you can see that you have actually "retrieved" and organized your own teaching materials and aids. Everything you have relating to one skill is now together. You have a simple and practical system because you have established two files: a testing file and a file with practice materials.

In educational jargon you have materials immediately accessible to:

1. diagnose learner needs via pertinent tests
2. prescribe appropriate learning experiences from alternative practice materials

Moreover, this accessibility makes it possible for you or aides or students to locate, use and replace materials with a minimum of effort and a maximum of efficiency. The potential to group, regroup as you diagnose and prescribe for learners is the result of:

1. Having a retrieval system that graphically shows who needs what, where they have been and where they are going.
2. Having materials organized and coded (numbered); therefore, making it possible to have alternant and appropriate learning experiences available and maintainable.

A retrieval system provides a profile of the learner's progress along a continuum of skills, concepts or behaviors. It gives the feedback necessary for you to make educational decisions. When you code (number) your materials to correspond with the retrieval system, you are facilitating the diagnostic and prescriptive process.

Since you are the decision maker in your classroom, you are responsible for expediting learning. A coded retrieval system adds up to a way of keeping up with as well as track of learners. You will be devising your own retrieval system as you find your way of keeping records. Remember the key, KEEP IT SIMPLE! Because keeping the retrieval system simple adds up to keeping your sanity.

APPENDIX: TESTS

Lowell D. Oswald

Salt Lake City Public Schools

The following tests (pp. 54-92) are deleted due to copyright restrictions:

Letter Recognition Inventory A
Letter Recognition Inventory Sheet A
Basic Noun Word-Picture Test B
Basic Noun Word-Picture Record Sheet B
Basic Noun Word Test C
Basic Noun Word Record Sheet
Phonics Inventory D
Special Directions Card D
RX Phonics Inventory Test Words
Phonics Inventory Booklet D
Basic Sight Word Test E
Basic Sight Word Record Sheet

All of the above were published by Psychotechnics, Inc., Glenview, Ill. 1971

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